204.2(7) - Liquid Refractive Index - Mineral Oil

Liquid Refractive Index - Mineral Oil - SRM 1922 is intended for use as a calibration material for refractometers, specifically for the refractive index range applicable to solutions of sugar and water. SRM 1922 is a mineral oil characterized for refractive index in the visible light range, and consists of one bottle of approximately 30 mL of liquid. Certified values of refractive index were conducted on a precision goniometer using the classical method of minimum deviation.

Certified values are given for the refractive indices at six wavelengths, at 20 °C, and for the change in n with respect to temperature, dn/dT valid over the temperature range from 15 °C to 35 °C:

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The refractive index corresponds to approximately 71.6 on the Brix scale.

PLEASE NOTE: The tables are presented to facilitate comparisons among a family of materials to help customers select the best SRM for their needs. For specific values and uncertainties, the certificate is the only official source.

SRM	Description	Unit Size	Wavelength (nm)	*n* (at °20 C)	dn/dT °C^{-1}
1922	Liquid Refractive Index - Mineral Oil	30 mL	467.8	$1.47685 \pm 2\times10^{-5}$	$-3.74\times10^{-4} \pm 3\times10^{-6}$
			480.0	$1.47583 \pm 3\times10^{-5}$	$-3.74\times10^{-4} \pm 3\times10^{-6}$
			508.6	$1.47373 \pm 2\times10^{-5}$	$-3.74\times10^{-4} \pm 3\times10^{-6}$
			546.1	$1.47149 \pm 2\times10^{-5}$	$-3.74\times10^{-4} \pm 3\times10^{-6}$
			643.8	$1.46744 \pm 2\times10^{-5}$	$-3.74\times10^{-4} \pm 3\times10^{-6}$
			589.3	$1.46945 \pm 6\times10^{-5}$	$-3.74\times10^{-4} \pm 3\times10^{-6}$